

THE DER WEEKLY

www.eren.doe.gov/der

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July 27, 2001

Industry News

Direct FuelCell® Shipped to LADWP

FuelCell Energy, Inc., announced on July 26 that it shipped a 250 kW Direct FuelCell® to the Los Angeles Department of Water and Power (LADWP), which will provide electricity to its downtown headquarters building. In a press release, Moe Chaudhry, Assistant Manager, Power Transmission and Distribution, LADWP, stated that the agency "is taking a leadership role in pursuing new technologies such as fuel cells which are environmentally friendly."

[FuelCell Energy](#) Press Release, July 26



Landfill Gas Microturbine Plant Operating

The Burbank Landfill Gas Microturbine Power Plant began producing electricity on July 13. The plant includes ten 30-kW Capstone microturbines and is generating electricity for the City of Burbank, California. The South Coast Air Quality Management District issued the permits to alter the existing landfill gas control system for the installation of the microturbines. The project cost \$550,000, and \$250,000 was provided by a grant from the California Energy Commission AB 970 Peak Load Reduction Program.

[Office of the Governor](#) Press Release, July 23

New Orders and Contracts for DCHT

DCH Technology, Inc., (DCHT) a fuel cell and hydrogen sensor manufacturer, has received an order from the Houston Advanced Research Center (HARC) for its 5 kW DCH Enable fuel cell with a natural gas reformer. HARC is studying several stationary proton exchange membrane (PEM) fuel cells and plans to test, demonstrate, and assess this system's performance. The study will examine power quality and reliability, technology transfer and training, and the development of long-term performance and emissions data.

The Texas Natural Resource Conservation Commission (TNRCC) has also sent a contract to DCHT for 10 DCH Enable remote fuel cell power systems to provide electricity on demand to air and water quality sampling equipment and communications equipment. These 15 watt/12 volt systems are a next-generation design of the 12 watt fuel cells the TNRCC has successfully used the past few months to power air and water quality monitors. The new 2-pound systems will power

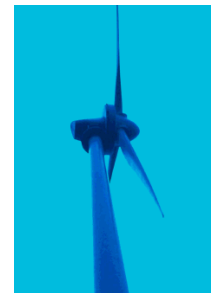
Find out how large companies are saving energy, cutting costs, and reducing pollution — read Power Crunch, The DER Weekly Feature on page 2.

the equipment for two to three weeks using a 900-liter hydride fuel supply. According to TNRCC spokesperson Steve Spaw, the commission's existing fuel cell systems have "performed to expectations" and TNRCC is pleased with the "improvements that DCH is making to further increase system reliability."

[DCH Technology](#) Press Releases, July 18 and 24; [Fuel Cells Today](#), July 23

Shell Renewables Buys Wyoming Wind Farm

Shell WindEnergy, Inc., Shell Renewables' U.S. wind energy operation, has signed an agreement with SeaWest Wind Power Inc., a San Diego wind farm developer, to purchase the Rock River I wind farm. Construction is taking place this summer, and the facility is scheduled to begin generating electricity in October. The wind farm will include 50 one-MW Mitsubishi turbines, and PacifiCorp, a unit of Scottish Power, will purchase the power under a 20-year agreement. Rock River I is expected to offset approximately 164,000 tons of greenhouse gasses annually.



[Shell](#) Press Release, July 24; [EREN Network News](#), July 25

Policy News

House Committee Passes Energy Tax Package

On July 18, the House Ways and Means Committee passed an energy tax package containing an extension of the wind energy production tax credit (PTC). H.R. 2911, the Committee's wide-ranging energy tax bill, also would expand the five-year extension of the wind tax credit to include electricity produced from open-loop biomass, landfill gas, and coal. According to the Wind Energy Weekly, the inclusion of a full five-year extension in the House tax package is a huge step forward. Republican leaders plan to weave the large tax package together with three or four energy policy bills emerging from other House committees.

[Wind Energy Weekly](#), July 20

(Continued on page 2)

PG&E announced that high-tech companies in its territory are requesting 1271 MW over the next 4 years for new data centers.*

Power Crunch: The DER Weekly Feature

Companies Get Serious About Energy Efficiency

Companies are adopting innovative strategies and technologies that are energy efficient, lower in cost, and environmentally friendly. These trendsetters can be large or small companies, from various sectors of the economy. If all businesses would follow in their footsteps, we would be one step closer to solving our energy challenges without compromising human health or the environment. According to *Cool Companies*, "virtually any business can achieve substantial energy and pollution savings that cost nothing, or have a short pay-back period."

Verizon Wireless and IBM, for example, have implemented aggressive energy efficient programs to save money and the environment. Verizon invested \$25 million in energy efficient technologies and recuperated that amount in only two years. Now the company enjoys \$20 million a year in savings from its installation of energy efficient lighting, benchmarking energy intensive buildings, and use of fuel cells. These measures are powerful load management tools that reduce stress on the electricity grid.



Ads are being placed in newspapers nationwide.

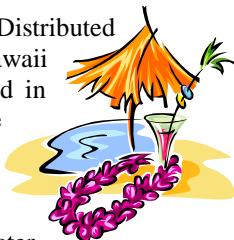
IBM instituted an energy retrofit in one of its facilities in 1998 that installed energy efficient lighting, windows, and elevators. Another important upgrade was performed on its internet servers and storage systems for data centers. Data centers house rows and rows of servers that route internet traffic and store data. IBM, along with Compaq, Dell, Hewlett Packard, Sun Microsystems, and other manufacturers, is producing more energy efficient servers and storage devices, reducing energy requirements. IBM has realized more than \$1 million in energy savings in this facility alone as a result of these capital investments. In this economic slowdown, energy efficiency should play a larger role in cutting costs, in addition to reducing pollution.

Source: www.coolcompanies.org

DOE News

DG Workshop in Hawaii

More than 180 people registered for a Distributed Energy Generation Opportunities for Hawaii and Other Pacific Islands workshop held in Honolulu on July 24 and 25. The workshop discussions focused on how user-owned electricity generation can meet facility electricity, heating and cooling, and reliability needs with greater efficiency and potentially lower costs. Photovoltaics, internal combustion engines, microturbines, and fuel cells were mentioned as options for commercial customers in Hawaii. Information regarding building energy requirement reduction, feasibility, interconnection, net metering, and permitting requirements was provided, and examples of distributed generation already in use in Hawaii were presented. The workshop was sponsored by the Department of Energy; Western Area Power Administration; State of Hawaii Department of Business, Economic Development, and Tourism; Hawaiian Electric Company; Hawaii Electric Light Company; Kauai Electric Company; Maui Electric Company; and The Gas Company. Gary Burch, Hybrid Power Systems Manager, Office of Power Technologies, was the luncheon speaker.



Regional Office News

BRO Hosts Workshop on State Building Codes

Forty-one states and more than 180 people (the largest turnout in the history of this event) participated in the U.S. Department of Energy's sixth National Workshop on State Building Energy Codes. The state of Vermont served as the host organization, and Pacific Northwest National Laboratory offered collaborative assistance. Opening remarks were provided by Hugh Saussy, Boston Regional Office; Doug Racine, Lieutenant Governor, Vermont; Mark Ginsberg, Deputy Assistant Secretary, Office of Building Technology, State and Community Programs; and Gail McKinley, Director, Office of Building Technology Assistance. Lectures and interactive

(Continued on page 3)

By the Numbers

\$800 million	year 2000 congestion costs for transmission customers in New England, New York, PJM, and California
\$169 million	congestion costs on California's Path 15 for the last four months of 2000

Source: "Transmission Planning: Weighing Effects on Congestion Costs," *Public Utilities Fortnightly*, July 15, 2001

workshops focused on states' experiences in adopting, implementing, and enforcing residential and commercial energy building codes.

DP and DG Program Reviews

Joe Galdo, DOE Distributed Power Program Manager and Pat Hoffman, Director, Office of Distributed Energy Resources (DER) conducted a quarterly review of DOE Distributed Power and Industrial Distributed Generation (DG) on July 25 - 27 in Washington, DC. The review consisted of sessions focusing on: interconnection standards and system integration testing activities, regulatory and institutional issues, interconnection and control technology and applications. Tom Rzy of ORNL's Energy Division worked with individuals from NREL and industry to coordinate the agenda and logistics for this review. Mike Karnitz, Manager of Oak Ridge National Laboratory's (ORNL) DER Program and members of the DER Program staff participated in the review where eight of ORNL's nine Industrial DG Projects were represented.

Environmental News

SolarBrightfield™ Planned for Brockton, MA

Spire Corporation, a supplier of solar electric systems and production equipment, announced on July 26 that it is participating in a state grant awarded to the City of Brockton, Massachusetts, to assess the feasibility of creating a large-scale solar power generating facility. The project would convert about 27 acres of contaminated brownfields into a SolarBrightfield™ with the capacity to produce 5 to 10 MW of electricity for Brockton residents and businesses and possibly offset 14,000 tons of CO₂ emissions annually. The Massachusetts Technology Park Corporation awarded the grant through the Massachusetts Renewable Energy Trust.

[Spire Corporation](#) Press Release, July 26

Announcements

DER R&D Workshop in California

A Staff Workshop will be held by The Strategic Energy Research Program of the Public Interest Energy Research Program to receive comment on an assessment of research and development activities and needs in the areas of Distributed Energy Resources interconnection, electricity grid impacts, and market integration. The Workshop is Tuesday, August 28, 2001, from 9:00 a.m. until 4:30 p.m. More information is available at www.energy.ca.gov/research/PIER/2001-07-25_der_notice.html.

BRO Solicitation for DER

Notice Dated: July 23, 2001

Office Address: U.S. Department of Energy, Boston Support Office, JFK Federal Building, Suite 675, Boston, MA 02203

Solicitation Number: SOL 01R122646

Response Deadline: Due August 17, 2001

Points of Contact: Albert H. Benson at (617) 565-9734 or John Golovach at (617) 565-9727

The U.S. Department of Energy's Boston Regional Office seeks bidders to provide technical solutions to improving combustion turbine operating efficiency through the use of reduction of the inlet air temperature below the then-existing ambient temperature. For purposes of this procurement, technical solutions that will produce a cost-effective, energy efficient solution that can be applied, without geographic limitation, across a broad range of combustion turbine sizes applicable to distributed energy applications are required. This project is in support of the U.S. Department of Energy, Distributed Energy Resources.

To obtain a copy of the RFQ, contact the U.S. Department of Energy, Boston Regional Office, Albert H. Benson at (617) 565-9734. Facsimile requests are acceptable and can be transmitted to (617) 565-9723 or al.benson@ee.doe.gov. Selection will be made by September 1, 2001.

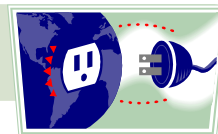
Call for Proposals: District Heating and Cooling

The International Energy Agency (IEA) Implementing Agreement on District Heating and Cooling, including the integration of Combined Heat and Power Annex VII, has released a Call for Proposals for program period 2002 to 2005. Annex VII will include two priority areas: technical-economical research on district heating, district cooling, and combined heat and power; and institutional research on district heating, district cooling, and combined heat and power.

Proposals are due before October 1, 2001.

For additional information, please contact your IEA national representative. U.S. representatives: Michael Karnitz, (865) 574-5150, karnitzma@ornl.gov; Mark Spurr, (612) 607-4544, mspurr@kattnerfbv.com; and Merrill Smith, (202) 586-3646, merrill.smith@ee.doe.gov.

What's on the Web



The Center for Energy & Climate

Solutions has produced a Web site that showcases companies with strong energy performance.

Coolcompanies.org provides information on how companies can take action, gives advice on forming business environmental partnerships, and discusses results, profits, and other topics. Visitors to the site can also order the book, [Cool Companies](#) by Joseph Romm, online.

Calendar of Events

JULY 2001

30 - Aug. 1	Green Power Conference	Portland, OR	Tina Kaarsberg, tina.kaarsberg@ee.doe.gov; megan_maguire@nrel.gov
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AUGUST 2001

7-8	Natural Gas/Renewable Energy Hybrids Workshop	Morgantown, WV	joan.barbish@netl.gov
11-15	NCSL Annual Meeting and Exhibition	San Antonio, TX	www.ncsl.org
21-22	Natural Gas/Renewable Energy Hybrids Workshop	Golden, CO	barbara_ferris@nrel.gov
21-24	International Energy Program Evaluation Conference	Salt Lake City, UT	608-835-6880; marymcc@tds.net
29-30	Integrated Energy Efficiency Conference and Facilities Management & Maintenance Expo	Cleveland, OH	www.aeecenter.org
29-Sep. 3	IEEC Integrated Energy Efficiency Congress	Cleveland, OH	Sponsored in part by FEMP; www.aeecenter.org

SEPTEMBER 2001

9-12	Microgeneration to Powerparks: Supply options and regulatory challenges for RE and DG techs.	Troy, MI	Great Lakes Renewable Energy Assn. www.glrea.org
9-14	6th International Conference on Carbon Dioxide Utilization	Breckenridge, CO	Barbara Ferris, 303-275-3781; www.nrel.gov/iccduevi/
10-11	Energy Trading in New Economy	New Orleans, LA	www.eyeforeenergy.com/eeo2
10-12	Electricity Transmission 2001	Arlington, VA	www.iir-ny.com
10-12	Interconnecting DG to Utility Distribution Systems	Madison, WI	University of Wisconsin-Madison, College of Engineering (800) 462-0876
11-13	7th Grove Fuel Cell Symposium	London, UK	www.grovetfuelcell.com
16-19	NASEO Annual Meeting	Portland, ME	www.naseo.org/events/annual/default.htm
17-21	5 th Biomass Conference of the Americas	Orlando, FL	www.fsec.ucf.edu/bioam ; dee_scheaffer@nrel.gov
20-21	ISO Technology Conference—Building the Electric Energy Industry Market	Washington, DC	www.isotechcon.com
20-21	Energy Investors Summit	San Francisco, CA	www.srinstitute.com/cr216
23-25	Powering the Future—New Strategies for Deploying DP	Philadelphia, PA	Barbara Wilkie, (207) 781-9623
24-25	Distributed Generation Conference	Denver, CO	www.cbnet.com
24-26	Powering the Future—New Strategies and Solutions for Deploying DP in the Marketplace	Chicago, IL	www.intertechusa.com
30 – Oct. 5	UPEX'01: The Photovoltaic Experience Conference & Expo	Sacramento, CA	Jjudd@ttcorp.com; hosted by Sacramento Municipal Utility District; includes distributed energy technologies workshop

Calendar of Events

OCTOBER 2001

2-3	Midwest Electrical Conf. and Expo	Indianapolis, IN	www.electricleagueindiana.org/expo2001/index.htm
7-10	APPA Telecommunications Wkshp.	Seattle, WA	www.appanet.org ; Bethany Luna (202) 467-2993
10-11	Fuel Cell Dynamics 2001: Reality, Not Hype	New York, NY	www.alliedworld.com
14-17	National Center for Photovoltaics Program Review	Lakewood, CO	barbara_ferris@nrel.gov, 303-275-3781
16-17	CHP Roadmap Meeting	Baltimore, MD	John Jimison, johnj@bcjlaw.com
16-17	Two-day Seminar on Materials for Corrosive Applications	Wilmington, DE	Rick Sutherlin, (541) 967-6924
24-26	World Energy Engineering Congress	Atlanta, GA	www.agcc.org (includes CHP Expo www.aeecenter.org)
24-27	Excellence in Building 2001	Orlando, FL	www.eeba.org/conference
28-Nov. 2	2001 IEEE/PES Transmission and Distribution Conference and Expo	Atlanta, GA	www.ieeet-d.org
29-30	Reliability-Focused Energy Efficiency Conference: Lessons Learned in 2001	Berkeley, CA	www.aceee.org

NOVEMBER 2001

1-2	3rd Int'l Symposium on DG	San Diego, CA	www.cader.org
1-4	World Congress for a Hydrogen Economy	Denver, CO	www.hydrogennow.org
7-9	NAESCO 18th Annual Conference	Miami, FL	www.naesco.org
11-14	113th NARUC Annual Convention	Philadelphia, PA	www.naruc.org
12-14	Fuel Cells for Stationary, Automotive and Portable Apps.	Fort Lauderdale, FL	Florida Educational Seminars, (561) 367-0193
27-28	Business for Fuel Cells for Stationary Applications	Brussels, Belgium	www.eyeforfuelcells.com

DECEMBER 2001

11-13	Power-Gen International	Las Vegas, NV	www.pennwellevents.com
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JANUARY 2002

29-Feb.1	Reducing Your Energy Costs Conference and Exhibit	New Orleans, LA	Stuart Steller, 781-939-2411, s.steller@cbinet.com
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FEBRUARY 2002

27-March 1	DistribuTECH	Miami Beach, FL	www.pennwellevents.com
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MARCH 2002

17-21	EPRI's 7th Distributed Resources Conference and Expo	Dallas, TX	lgoldie@epri.com
19-21	Electric Power 2002	St. Louis, MO	www.electricpowerexpo.com